Avid® Digital News Gathering System

Site Preparation Guide

Avid

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Ref: C97029a

Canadian ICES-003

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareil numérique de class A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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Application of Council Directives: 73/23/EEC, 89/336/EEC. Standards to which Conformity is Declared: EN 60950: 1992 + A1, A2: 1993, IEC950: 1992 + A1, A2: 1993 Mod., CISPR 22:1985 / EN 55022:1988 Class A (1), EN 50082-1, IEC801 -2, -3, -4. Manufacturer's Name: Avid Technology Inc., 1925 Andover Street, Tewksbury, MA 01876, USA. European Contact: Nearest Avid Sales and Service Office or Avid Technology Int'l B.V., Sandyford Business Center, Unit 3, Dublin 18, Ireland. Type of Equipment: Information Technology Equipment. Product Name: Avid Editing System, PCI Media Composer, MCXpress for Macintosh, Film Composer. Base Model Numbers: 400S, 800, 900, 1000, 4000, 8000, MC Offline, Media Station. Product Options: All. Year of Manufacture:1997. (1) The product was tested in a typical Avid Editing System configuration.

I the undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards.

George R. Smith, Quality Manager Ref: C97029a, C97030a

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Preface

This guide provides site requirement information for Avid® broadcast and Digital News Gathering (DNG) systems.

Who Should Use This Guide

Read this guide if you are responsible for preparing a site for installation. The guide provides specifications about your Avid broadcast system in the following areas:

- Environmental
- Physical (dimensions and weight)
- Electrical

Symbols and Conventions

This guide uses the following special symbols and conventions:

- Bulleted lists, when the order of the items is unimportant.

A warning describes an action that could cause you physical harm. Follow the information in the guide or on the unit itself when handling electrical equipment.

If You Need Help

If you are having trouble using your Avid broadcast product, you should:

1. Retry the action, carefully following the instructions given for that task in this guide.
2. Check the documentation that came with your hardware for maintenance or hardware-related issues.
3. Check the Services & Support section of the Avid web site at http://www.avid.com for the latest FAQs, Tips & Techniques, Avid Answers, and other Avid online offerings.
4. Check the Avid Bulletin Board, "Avid Online," for product information. If you do not find the solution to your problem, you can exchange information with other Avid customers and Customer Support representatives.
5. News DNG Maintenance Agreement contract customers can contact Avid Broadcast Customer Support at 1-800-NEWS DNG (639-7364).

(*For more information about support and News DNG Maintenance Agreements, call Avid TeleSales at 1-800-949-2843.*)

Related Documentation

The following documents provide more information pertaining to Broadcast products:

- *Avid Digital News Gathering System Hardware Guide — describes in detail all the hardware broadcast component connections.*
- *Avid NewsCutter User's Guide — describes how to operate the NewsCutter® system and software.*

- *Avid MediaServer Administration Guide — describes the administrative functions of the MediaServer™.*
- *Avid MediaServer Client User's Guide — describes how to operate MediaServer clients and software.*
- *Avid AirPlay User's Guide — describes how to operate the AirPlay® MP system and software.*
- *Avid Media Recorder User's Guide — describes how to operate the Media Recorder® and software.*

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Please include the title of the document, its part number, revision, and the specific section you're commenting on in all correspondence.

Avid Digital News Gathering Site Preparation

This guide provides information about site requirements where the Avid broadcast and Digital News Gathering (DNG) system will be installed. Also included are specifications on the system components.

Site Requirements

The following are the site requirements for all Avid systems.

Power Requirements

Each channel of an Avid broadcast product requires one circuit of 20 A, 110 to 120 V ac, 60 Hz or 10 A, 220 to 224 V ac, 50 Hz. Storage upgrades might require additional electrical service. Consult your Avid representative. Surge protection and an uninterruptible power supply (UPS) is recommended for all systems.

Rack-mounted systems using 120 V ac require a female NEMA L5-20 receptacle located within 24 inches of the base of the rack. There must be one connector for each Avid Media Processor.

The 220 V ac systems ship with pigtails on the input cable. Consult your local electrical codes for details.

Source Requirements

Avid systems accept video and audio that adhere to broadcast standards. Excessive jitter and/or noise on a signal is not an acceptable source.

Synchronization Requirements

A stable video reference source is required for synchronizing the system.

Printing Requirements

The Avid Media Processor uses the standard Apple® Macintosh® printing capabilities. You can use network printers via Ethernet® connections.

Networking Requirements

Avid broadcast products are always connected to networks, isolated from corporate networks. This protects your broadcast system from network problems.

Telephone Requirement

Systems which include a modem require an analog telephone line. Avid encourages all customers to use the Avid Online Bulletin Board Service (BBS) to log feature requests, to report problems, and to access the latest news from Avid headquarters and other users.

Environmental Requirements

Table 1 lists the environmental specifications for a standard broadcast environment.

Table 1 Environmental Specifications

Condition	Range
Operating temperature	50°F to 75°F (10°C to 24°C)
Storage temperature	–40°F to 80°F (–40°C to 27°C)
Relative humidity	10% to 80% / Wet bulb 82°F (27.7°C) maximum
Altitude	0 to 6000 ft (0 to 1829 m)

Avid System Layouts

This section provides cabling guidelines and a typical system layout for each Avid broadcast system. The exact orientation of the equipment depends on:

- Available space in the work area – This document provides the dimensions of the equipment; however, Avid recommends additional space for access and ventilation.
- Length of the cables – Table 2 lists cables shipped with the equipment. Table 3 lists the cables that are customer-supplied. Having cables with excessive length clutters the area and is not recommended. See **"Avid System Cabling Guidelines" on page 14** for other cabling information.
- User preference – Having items like the monitor, video recording machine, and system on the left or right side is up to the user. The order from top to bottom in the rack can also differ due to access of the controls or viewing indicators.

Avid System Cabling Guidelines

Please note the following guidelines when setting up the system.

- Do not use SCSI cables other than those supplied by Avid.

  Avid SCSI cables provide proper impedance matching and deliver the best performance for tested and qualified Avid broadcast system configurations.

- The monitors should be within 25 feet (7.6 meters) of the Avid Media Processor.

  Greater distances degrade the images displayed on the monitors.

- The keyboard and mouse should be within 12 feet (3.6 meters) of the Avid Media Processor.

  The maximum distance is greater when the remote control and general-purpose interface (GPI) connectors on the broadcast panel are not used.

- The Pro Tools® unit (audio interface and Video Slave Driver™) must be within 12 feet (3.6 meters) of the Avid Media Processor.

  The Pro Tools unit synchronizes the system. If the unit is located more than 12 feet (3.6 meters) away from the Avid Media Processor, the synchronization signal is delayed and the system will not operate properly.

- The V-LAN® VLXi® must be within 100 feet (30 meters) of the Avid Media Processor and the decks. Avid supplies a 6 foot (1.83 meter) cable.

  This limit is imposed by RS-422 cable connections requirements.

- The AirPlay MP remote control must be within 10 feet (3 meters) of the Avid Media Processor.

- The length of the fiber optic cable between the client and server can physically be 3300 feet (1000 meters).

Table 2 lists the length of the cables shipped with the systems. Use these lengths to help determine the maximum distance system components can be placed away from each other.

Table 2 Avid-Supplied System Cables

Cable Description	Length	Connects
Standard power cables	Up to 6 ft (1.8 m)	Avid Media Processor and system components to power strip (or source)
Keyboard cable	Up to 6 ft (1.8 m)	Keyboard to Avid Media Processor
Mouse cable	Up to 6 ft (1.8 m)	Mouse to Avid Media Processor
User interface (UI) monitor cable	Up to 15 ft (4.6 m)	UI monitor to Avid Media Processor
SCSI cable	Up to 6 ft (1.8 m)	SCSI devices (MediaDock™, MediaDrive, and multi-drive rack-mountable storage (MRS) enclosures) to the Avid Media Processor
	Up to 30 ft (9.15 m)	SCSI RAID units (MX/500)
Fiber optic cable (optional)	Up to 3300 ft (1000 m)	ATM switch to the client
Serial cable	Up to 15 ft (4.6 m)	Direct serial controller to Avid Media Processor
Remote, desktop cable	Up to 15 ft (4.6 m)	Desktop remote control to Avid Media Processor
Remote, rack cable	Up to 25 ft (7.6 m)	Rack remote control to Avid Media Processor
Pro Tools audio cable	Up to 12 ft (3.7 m)	Pro Tools audio board to eight-channel audio port
User interface ADB switch* (keyboard and video cables)	Up to 15 ft (4.6 m)	User interface ADB switch to Avid Media Processor
GPI control cable	Up to 25 ft (7.6 m)	GPI controller to Avid Media Processor

Table 2 Avid-Supplied System Cables (Continued)

Cable Description	Length	Connects
VLXi cable	Up to 25 ft (7.6 m)	VLXi to Avid Media Processor
Speaker cable	Up to 20 ft (6.1 m)	Speaker to AB amplifier

* User interface Apple Desktop Bus (ADB) switch is also known as the *Rose box*.

Table 3 lists the cables that are supplied by the customer. Lengths are determined by the customer's needs.

Table 3 Customer-Supplied System Cables

Cable Description	Connects
BNC video reference cables	Black burst generator or reference video source to deck, Avid Media Processor, Video Slave Driver, and V-LAN VLXi
BNC video cables (analog or digital)	Avid Media Processor to customer-supplied equipment (such as a deck and playback monitors)
BNC timecode cables	V-LAN VLXi to deck (required only if deck does not have a built-in timecode)
Printer cable	Avid Media Processor to customer-supplied printer
RJ45 Ethernet hub cables	Ethernet hub to channels
Fiber optic cables	ATM switch to clients (fiber optic cables must be industry-certified)

NewsCutter Layout

Figure 1 shows all standard and optional NewsCutter components except for a video reference source or a black burst generator, mounted inside the top of the rack.

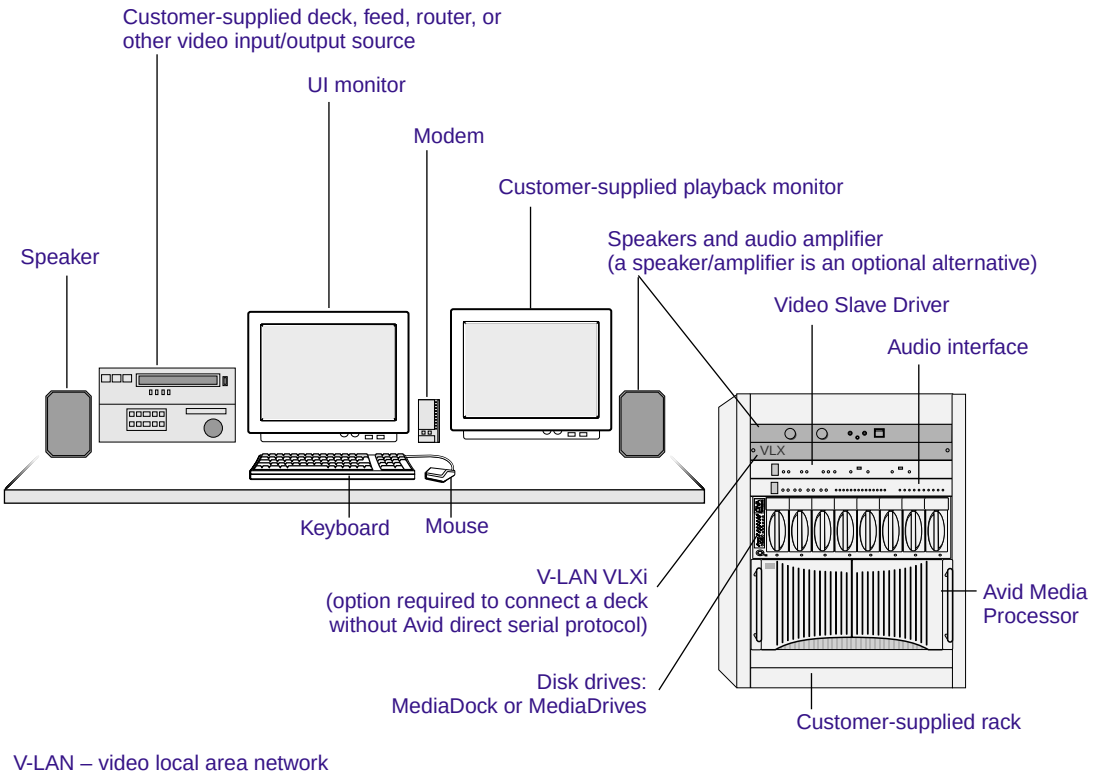

Figure 1 Sample NewsCutter System Layout

Media Recorder Layout

Media Recorder uses the same basic hardware as NewsCutter. However, it has a smaller UI monitor. Figure 2 shows all standard and optional Media Recorder components except for a source of reference video or a black burst generator, mounted inside the top of the rack.

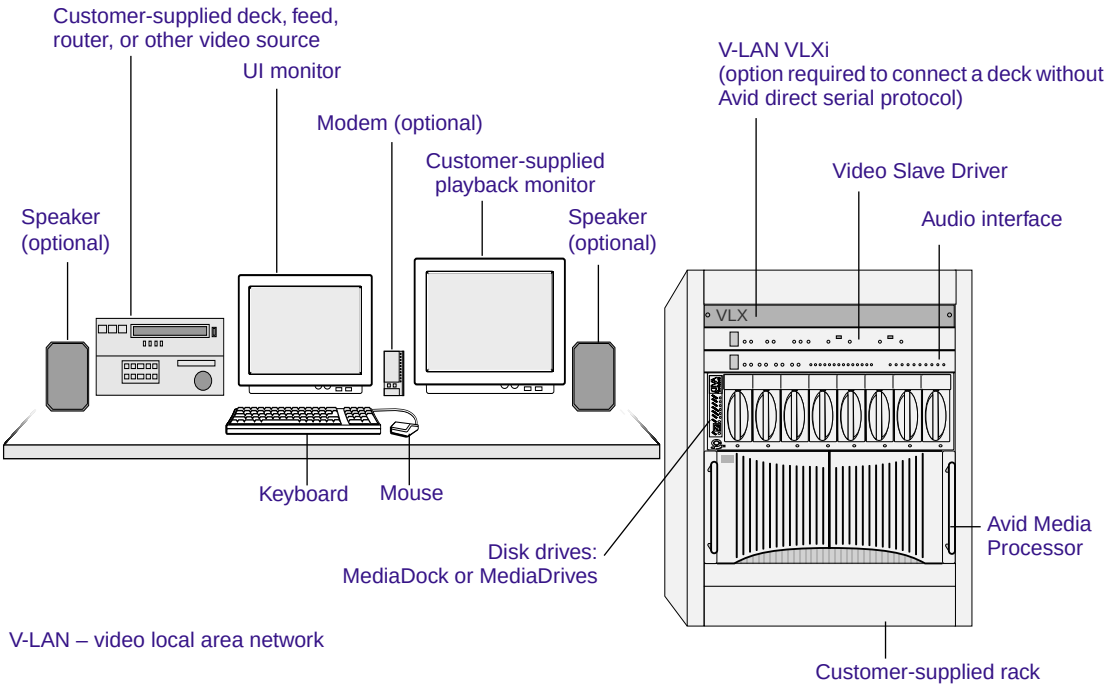

Figure 2 Sample Media Recorder System Layout

AirPlay MP and AirPlay MP/NewsCutter Layout

Figure 3 shows the standard and optional components for single-channel AirPlay MP or an AirPlay MP/NewsCutter combination system.

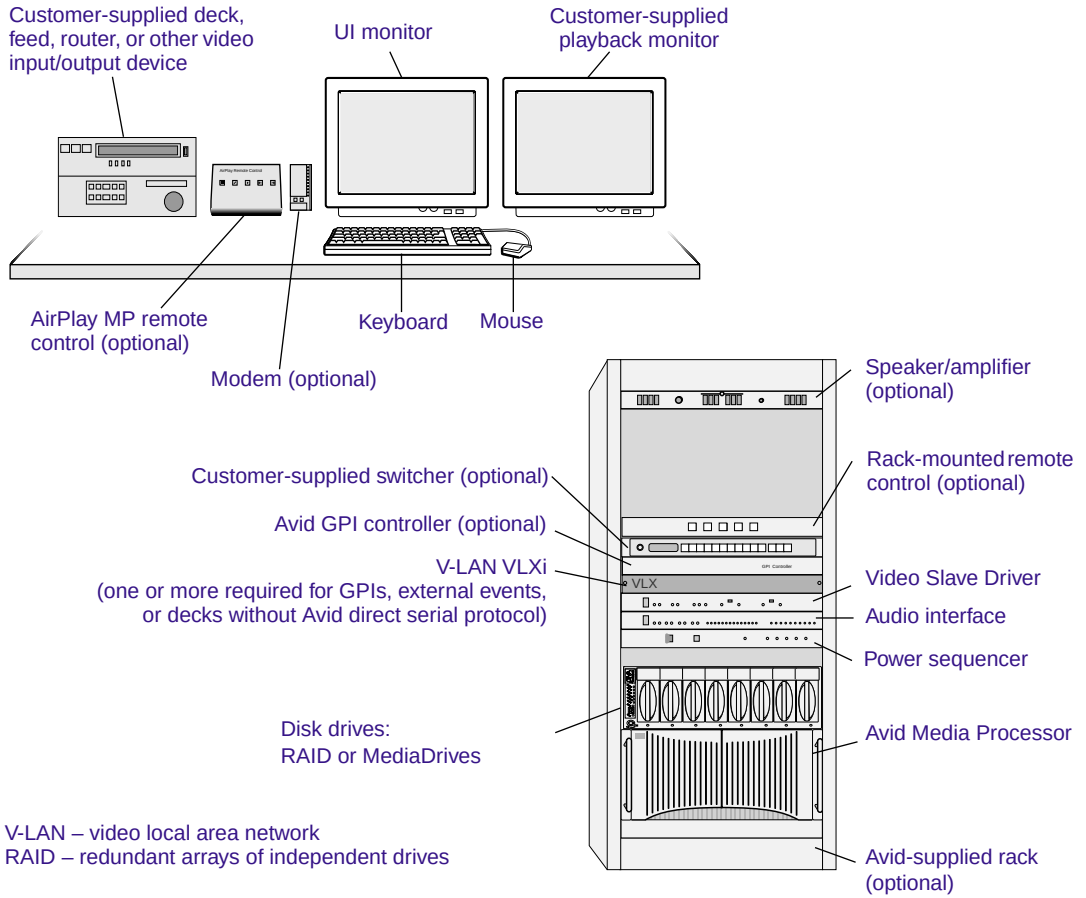

Figure 3 Sample Layout for a Single-Channel AirPlay MP or AirPlay MP/NewsCutter Combination System

Single-Channel-With-Record AirPlay MP Layout

Figure 4 and Figure 5 show the components in a fully installed single-channel-with-record AirPlay MP system.

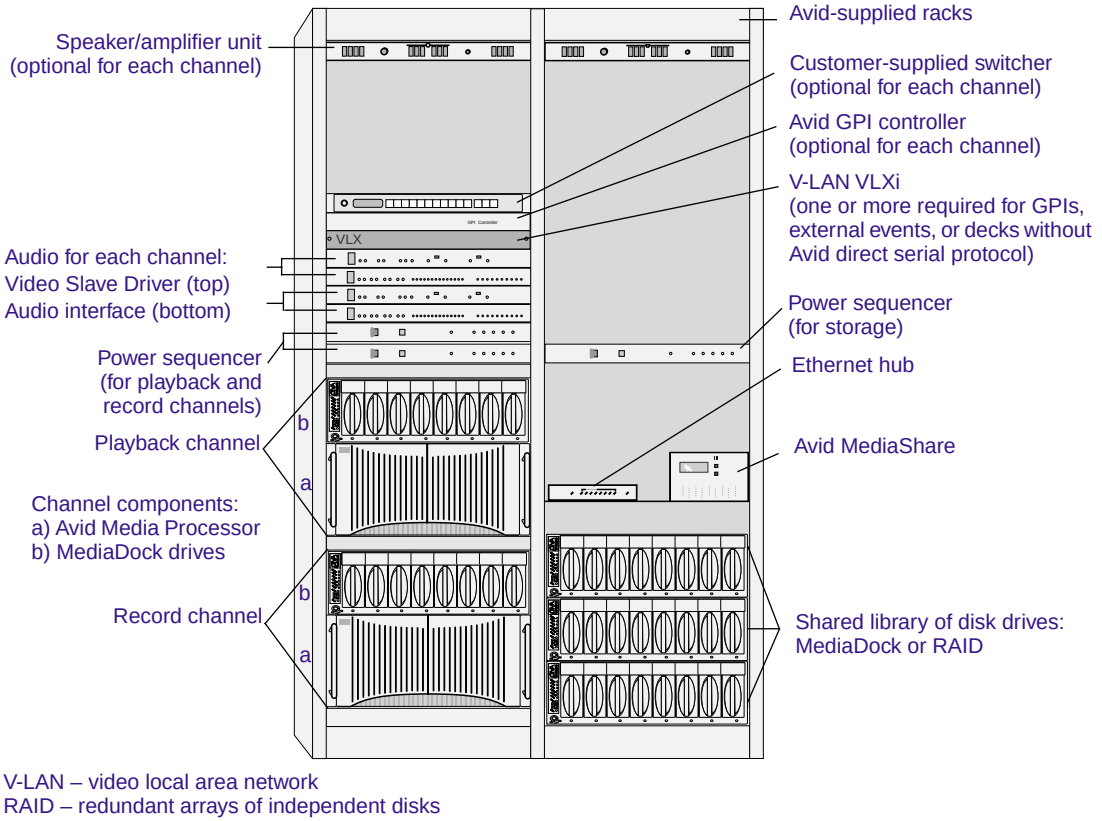

Figure 4 Rack-Mounted Components for Single-Channel-With-Record AirPlay MP

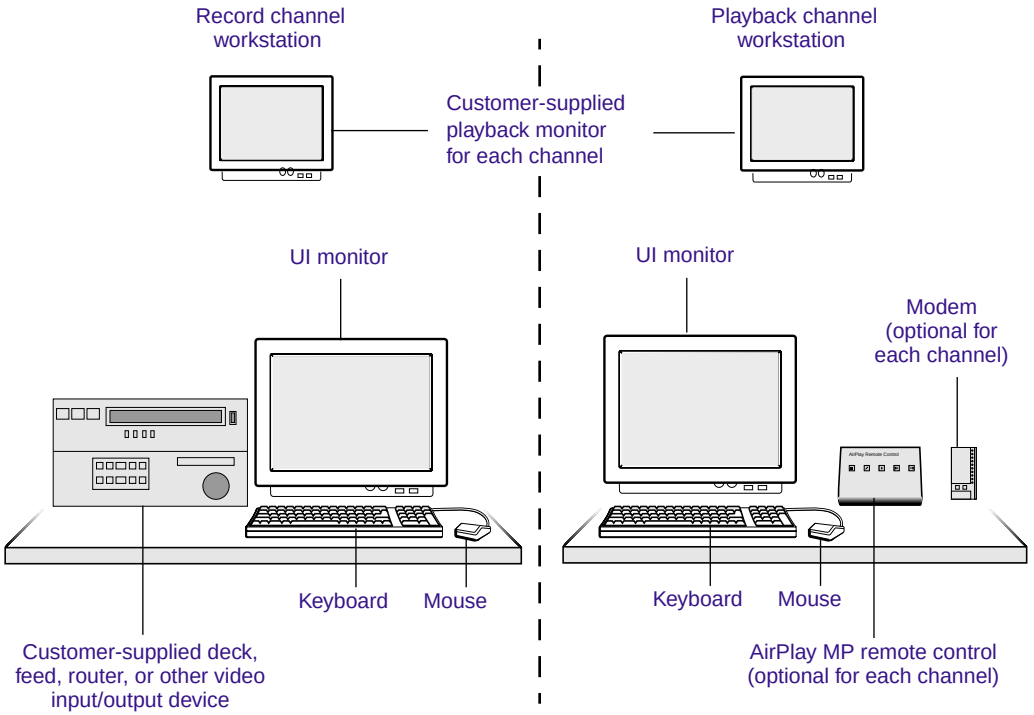

Figure 5 Additional Components for Single-Channel-With-Record AirPlay MP

Two- and Three-Channel AirPlay MP Layout

Figure 6 and Figure 7 show the standard and optional components for a three-channel AirPlay MP system.

Two-channel system components for the second playback channel are omitted, and the record channel is located below playback channel 1.

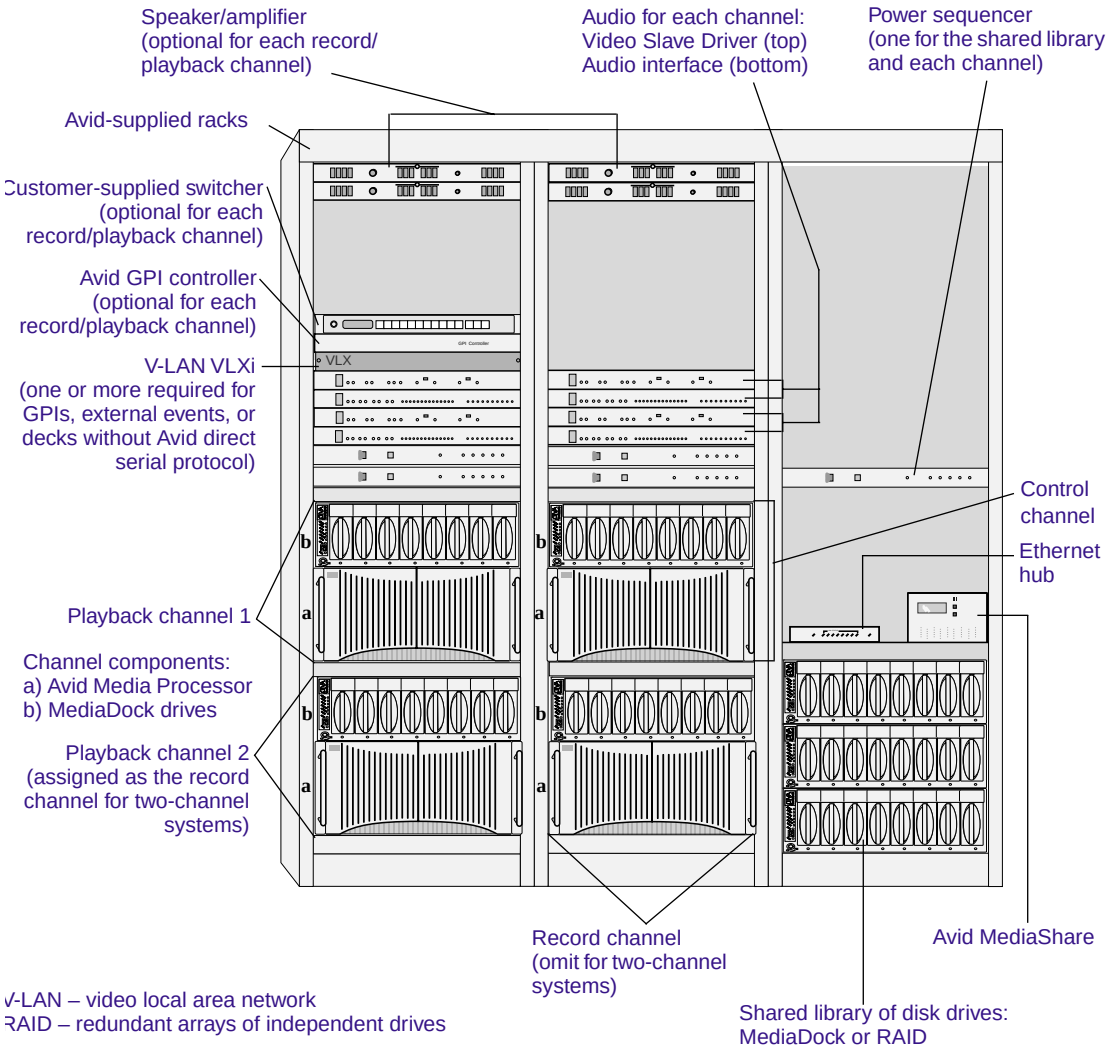

Figure 6 Rack-Mounted Components for Three-Channel AirPlay MP

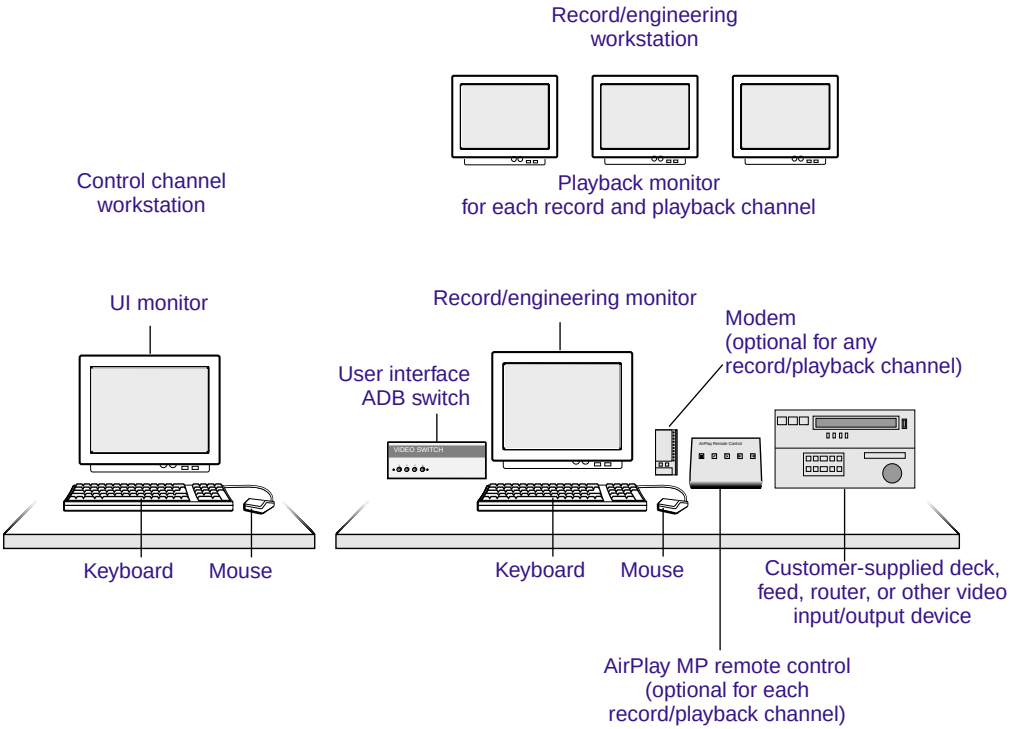

Figure 7 Additional Components for Three-Channel AirPlay MP

MediaServer Layout

The server is not supplied by Avid. Your Avid representative can provide you with a list of Avid-certified vendors. To access the MediaServer database, you must have a customer-supplied server console. The ATM switch, Ethernet hub, and RAID units are all components of a MediaServer. NewsCutter, Media Recorder, and single-channel AirPlay MP workstations (shown in earlier figures) can all be used as the clients for the MediaServer. Figure 8 shows a sample layout of server components.

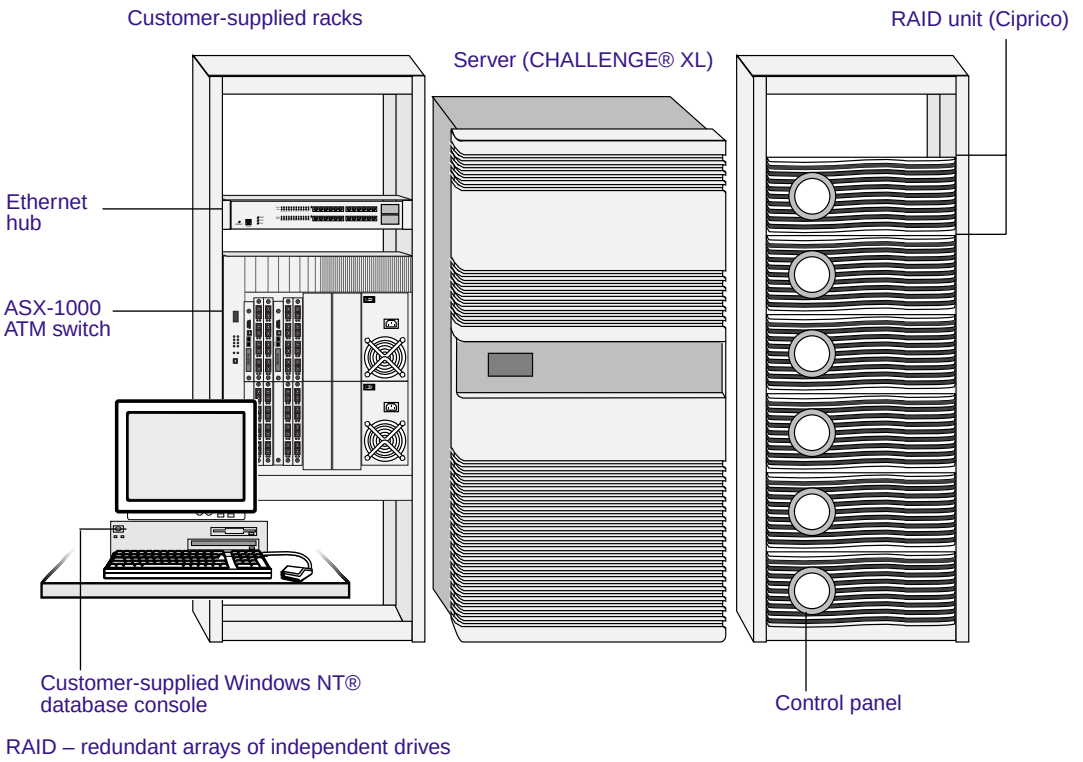

Figure 8 Sample MediaServer Component Layout

The customer is responsible for supplying a database console computer with a Windows NT® operating system. This console computer requires the components specified in Table 4.

Table 4 Database Console Requirements

Component	Specification
Processor	Intel® Pentium® Pro; 200 MHz.
Memory	128-MB; internal system memory.
Hard drive	4-GB intelligent device electronics (IDE) hard drive with NTFS format; primary drive that contains the operating system and 3 GB of database information.
Diskette drive	3.5-inch diskette drive; reads and writes to 1.44-MB diskettes. The Avid database installation is distributed on diskette.
CD-ROM reader	Any CD-ROM reader: required for loading software. The On-Line Dynamic Server is distributed on CD.
SCSI accelerator board	Any SCSI board; required for connected SCSI hard drive and tape drive.
SCSI hard drive	3-GB SCSI hard drive; this is a database mirror drive. The disk must be formatted as NTFS. Avid recommends using separate drive controllers for the primary and mirror database drives.
SCSI tape drives	Two Windows NT compatible, SCSI tape drives; these tape drives must be able to work simultaneously with each other. Both connect to the SCSI accelerator board and are used to back up the database. A minimum of four compatible tapes are required. The total number of tapes depends on the database size.

Table 4 Database Console Requirements (Continued)

Component	Specification
Network board	TCP/IP compatible network board; required for network and server connections.
Modem	28,000 bps modem.
Monitor	Any monitor; required for viewing the server console information.
Operating system	Windows NT Workstation version 4.0.
Server software	Informix DB server software; "On-Line Dynamic Server" version 7.2.2 or later. Do not use "On-Line Dynamic Server for Workgroups."
Remote software	Timbuktu® Pro for Windows software; version 4.1 or later (supports Windows NT).

Component Weights and Dimensions

When the Avid system ships:

- NewsCutter is shipped on a pallet and weighs approximately 400 lb (181 kg) per system.
- Media Recorder is shipped on a pallet and weighs approximately 400 lb (181 kg) per system.
- AirPlay MP is crated and weighs approximately 1000 lb (453 kg) per container.

Table 5 provides the dimensions and weights of Avid system components.

Table 5 Physical Specifications for Components

Component	Rack Mount	Rack Units	Height x Width x Depth	Weight
ATM switch				
ASX-200BX (add a rack unit for cables)	Yes	3 +1	4.75x 17.5 x 18 in (12 x 44.5 x 47.7 cm)	24.9 lb (11.3 kg)
ASX-1000 (add a rack unit for cables)	Yes	14 +1	24.5 x 19 x 18 in (62 x 48 x 45.7 cm)	89.7 lb (41 kg)
Audio				
Two-channel audio amplifier	Yes	1	2 x 19 x 12 in (5 x 48 x 30 cm)	16 lb (7 kg)
Audio interface	Yes	1	2 x 19 x 9 in (5 x 48 x 23 cm)	3.8 lb (1.7 kg)
Avid eight-channel audio interface (optional)	Yes	2	3.5 x 19 x 9 in (8.9 x 48 x 23 cm)	7 lb (3.2 kg)
Speakers	No	—	10 x 6.5 x 7.5 in (25 x 17 x 19 cm)	7 lb (3.2 kg)
Speaker/amplifier combination	Yes	1	2 x 19 x 12 in (5 x 48 x 30 cm)	14 lb (6.4kg)
Video Slave Driver	Yes	1	2 x 19 x 9 in (5 x 48 x 23 cm)	3.8 lb (1.7 kg)
Avid Media Processor (computer system)	Yes	5	8.68 x 16.68 x 23.12 in (22 x 42 x 59 cm)	58 lb (26 kg)
CHALLENGE XL (server)	No	—	74.5 x 46 x 59.75 in (189 x 117 x 152 cm)	400 lb (180 kg)
CHALLENGE DM (server)	No	—	40 x 39 x 34 in (102 x 99 x 86 cm)	160 lb (72 kg)

Table 5 Physical Specifications for Components (Continued)

Component	Rack Mount	Rack Units	Height x Width x Depth	Weight
Disk drives (local and shared library)				
MediaDrives	No	—	4 x 10 x 11 in (10 x 25 x 28 cm)	15 lb (6.8 kg)
MegaDrive MX/500 RAID	Yes	8	7 x 19 x 20 in (18 x 48 x 50 cm)	65 lb (29.2 kg)
Ciprico® RAID	Yes	4	7 x 17 x 22 in (18 x 43 x 56 cm)	75 lb (33.8 kg)
MediaDock unit (MediaDock Shuttle™ drives mount inside the Media Dock)	Yes	4 +1 for cables	17 x 7 x 14 in (44 x 18 x 50 cm)	25 lb empty (11.3 kg) 2 lb/drive (0.9 kg)
MediaShare™	No	—	5 x 8 x 9.2 in (13 x 20 x 23 cm)	6.3 lb (2.8 kg)
Ethernet hub (desktop)	No	—	1 x 7 x 4 in (2.5 x 18 x 10 cm)	1.1 lb (0.5 kg)
Ethernet hub (rack-mounted)	Yes	2	3.5 x 19 x 6 in (8.9 x 48 x 15 cm)	
Monitors				
14-inch UI monitor	No	—	14 x 14 x 14.5 in (36 x 36 x 37 cm)	31 lb (14 kg)
17-inch record/engineering monitor	No	—	16 x 16 x 17 in (41 x 41 x 43 cm)	38 lb (17.1 kg)
20- and 21-inch UI monitor	No	—	18 x 20 x 23 in (46 x 51 x 58 cm)	71 lb (32 kg)
Playback monitor (customer-supplied)	—	—	—	—
Power sequencer	Yes	1	1.75 x 19 x 7.5 in (5 x 48 x 19 cm)	

Table 5 Physical Specifications for Components (Continued)

Component	Rack Mount	Rack Units	Height x Width x Depth	Weight
Serial devices				
AirPlay MP remote control (rack-mounted)	Yes	1	2 x 19 x 7 in (5 x 48 x 18 cm)	6.6 lb (3 kg)
AirPlay MP remote control (desktop)	No	—	3.5 x 7 x 5.5 in (9 x 18 x 14 cm)	
Modem	No	—	5 x 3 x 10 in (13 x 8 x 25 cm)	1.5 lb (0.7 kg)
User devices				
Keyboard	No	—	2 x 19 x 8 in (5 x 48 x 20 cm)	3.8 lb (1.7 kg)
Mouse	No	—	1 x 2 x 4 in (2.5 x 5 x 10 cm)	0.3 lb (0.1 kg)
Video input/output hardware (to be used with customer-supplied decks, feeds, or routers)				
Avid GPI controller	Yes	1	1.75 x 19 x 7.5 in (5 x 48 x 19 cm)	6.7 lb (3 kg)
Black burst generator	No	—	1.75 x 7 x 8 in (5 x 18 x 20 cm)	1.9 lb (0.9 kg)
User interface ADB switch	Yes	3	4 x 11 x 5.5 in (10 x 28 x 14 cm)	4.5 lb (2 kg)
V-LAN and VLXi	Yes	1	1.75 x 19 x 11 in (5 x 48 x 28 cm)	8.5 lb (3.8 kg)

Avid-Supplied Rack Specifications

Avid provides a rack-mount housing for the AirPlay MP systems. The enclosures are expandable to include one, two, or three racks, depending on the size of the system (see Table 6).

Racks include rails, a ground bar, and cable tie bars for organizing and securing the system's cables. A rail is mounted to each of the four corners of the rack. The rails have mounting holes from top to bottom. Slide kits are supplied with system components and are secured to the rails using three rack mounting holes. Each set of three mounting holes is called a rack unit (1.75 inches in height).

Table 5 lists whether the component is rack-mountable or not.

Table 6 Avid System Rack Enclosure Capacity

Configuration	Rack Units	Width	Depth
Single rack	38	22.06 in (56 cm)	30 in (76 cm)
Double rack	76	44.12 in (112 cm)	30 in (76 cm)
Triple rack	114	66.18 in (168 cm)	30 in (76 cm)

Figure 9 shows the front view of an enclosure that has been expanded to include two racks.

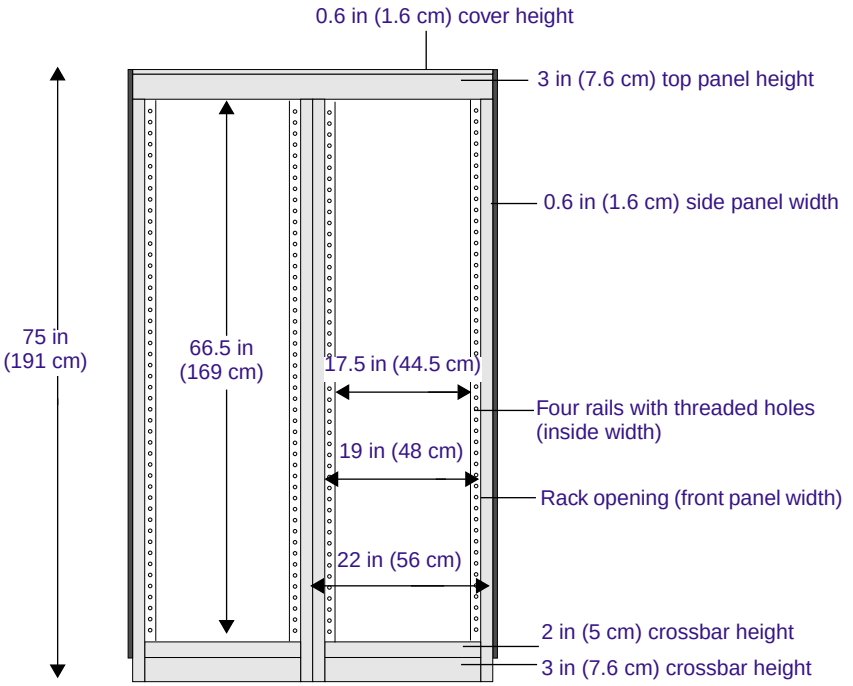
0.6 in (1.6 cm) cover height
3 in (7.6 cm) top panel height
0.6 in (1.6 cm) side panel width
75 in
(191 cm)
66.5 in
(169 cm)
17.5 in (44.5 cm)
Four rails with threaded holes
(inside width)
19 in (48 cm)
Rack opening (front panel width)
22 in (56 cm)
2 in (5 cm) crossbar height
3 in (7.6 cm) crossbar height

Figure 9 Two-Rack Enclosure (front view)

Be sure the installation site provides adequate front and back service access, as shown in Figure 10.

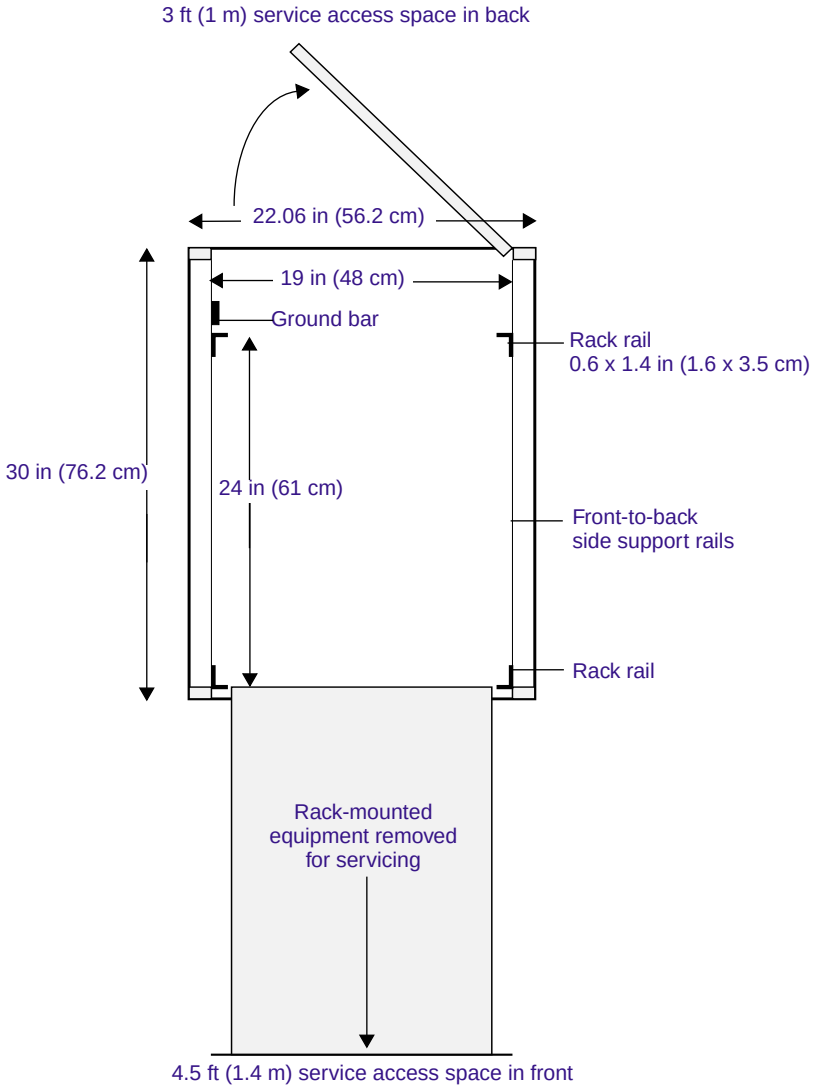

Figure 10 Rack Dimensions and Service Access (overhead view)

The base of each rack has casters and leveling feet that you can remove to bolt the enclosure to the floor (see Figure 11).

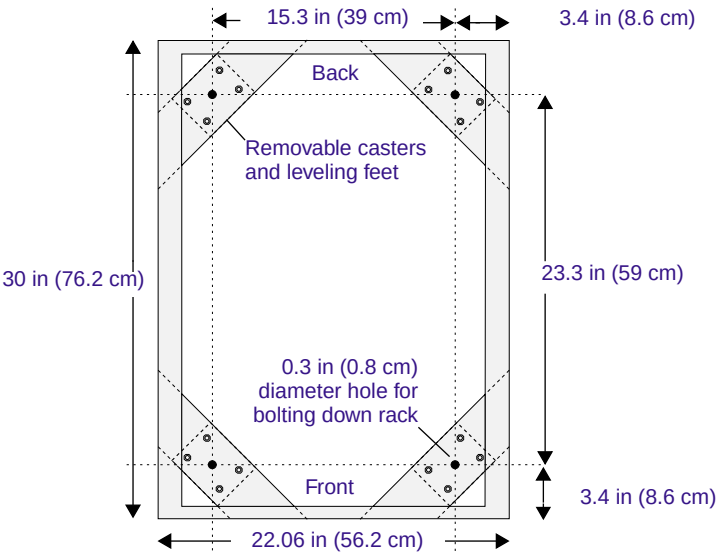

Figure 11 Base for a Rack (overhead view)

Power Requirements

Make sure the site has an adequate power source with overcurrent protection. If it is an existing power source, make sure that the additional power draw will not overload the circuits. Take into consideration the equipment nameplate ratings when addressing this concern.

Most systems are designed to work with single-phase (3-wire) power cord with a grounded neutral conductor. To reduce the risk of electric shock, always plug the cord into a grounded power outlet.

Avid rack-mount systems now include a power sequencer. This component allows the entire rack to be started up with a single switch. The power switch is also a circuit breaker. One power sequencer is included with each Avid Media Processor and share storage library.

Rack-mounted systems using 120 V ac require a female NEMA L5-20 connector located within 24 inches of the base of the rack. There must be one connector for each Avid Media Processor in a multichannel AirPlay MP system.

International rack-mounted systems are supplied with no input connectors. Consult your local electrical codes for the proper connector combination, for example, 10 A at 220 V ac. There is one power input for each Avid Media Processor.

Table 7 lists the power requirements for individual system components. The total approximate power for a system with one MediaDrive is 915 W. Each system requires three surge protectors and a UPS (not supplied by Avid).

For best performance, keep all system power connections on the same power feed distribution panel. Do not connect fans, lamps, coffee pots, or other equipment to the same outlet that is powering the Avid equipment.

Table 7 Power Requirements

Item	Type	Voltage	Frequency	Power
ATM switches				
ASX-200BX	Auto-sensing	120 V ac 240 V ac	60 Hz 50 Hz	200 W
ASX-1000	Auto-sensing	120 V ac 240 V ac	60 Hz 50 Hz	

Table 7 Power Requirements (Continued)

Item	Type	Voltage	Frequency	Power
Audio				
Audio interface	Auto-sensing	100 to 120 V ac 220 to 240 V ac	60 Hz 50 Hz	16 W
Two-channel audio amplifier	Switch select-able	120 V ac 220 V ac	60 Hz 50 Hz	300 W max
Avid eight-channel audio inter-face (optional alternative)	Auto-sensing	90 to 240 V ac	47 to 63 Hz	30 W
Speaker / amplifier combination		110 V ac 230 V ac	60 Hz 50 Hz	35 W
Video Slave Driver	Auto-sensing	100 to 120 V ac 220 to 240 V ac	60 Hz 50 Hz	16 W
Avid Media Processor (computer system)	Auto-sensing	100 V ac 240 V ac	60 Hz 50 Hz	248 W @ 110 V ac, 60 Hz
CHALLENGE XL (server)	3-phase	208 to 240 V ac	47 to 63 Hz	5700 W
CHALLENGE DM (server)	Single-phase	110 V ac 220 to 240 V ac	47 to 63 Hz	1500 W 1900 W
Disk drive systems				
MediaDrives	Auto-sensing	120 V ac, ± 10% 240 V ac, ± 10%	60 Hz 50 Hz	70 W
MediaDock	Switch select-able	83 to 245 V ac	47 to 63 Hz	140 W (idle) 200 W (max)
MediaShare	Auto-sensing	90 to 240 V ac	47 to 63 Hz	25 W

Table 7 Power Requirements (Continued)

Item	Type	Voltage	Frequency	Power
MegaDrive MX/500 RAID	Switch select-able (via fuse)	110 V ac, 220 V ac	47 to 63 Hz	200 W (idle)
Ciprico 7000 RAID	Auto-sensing	100 to 120 V ac 200 to 240 V ac	60 Hz 50 Hz	
Ethernet hub (desktop)	Dedicated	110 V ac or 220 V ac	60 Hz 50 Hz	
Monitors				
14-inch UI monitor (NTSC)		120 V ac	60 Hz	85 W
14-inch UI monitor (PAL)	Auto-sensing	110 V ac 220 V ac	60 Hz 50 Hz	85 W
17-inch record/engineering monitor	Auto-sensing	100 to 120 V ac 200 to 240 V ac	60 Hz 50 Hz	120 W
20- and 21-inch UI monitors	Auto-sensing	120 V ac ± 10% 220 to 240 V ac	60 Hz 50 Hz	140 W
Playback monitor (user-supplied; requirements vary)	—	—	—	—
Power Sequencer	Switch select-able	115 V ac or 230 V ac	60 Hz 50 Hz	
Serial devices				
AirPlay MP remote control (desktop model)	Auto-sensing	90 to 264 V ac	47 to 63 Hz	25 W
AirPlay MP remote control (rack-mounted model)	Auto-sensing	90 to 264 V ac	47 to 63 Hz	25 W
Modem		120 V ac 240 V ac	60 Hz 50 Hz	

Table 7 Power Requirements (Continued)

Item	Type	Voltage	Frequency	Power
System enclosure's fan	Dedicated	110 V ac or 220 V ac	60 Hz 50 Hz	
Video and input/output hardware				
Avid GPI controller	Auto-sensing	90 to 64 V ac	47 to 63 Hz	25 W
Black burst generator	Switch Selectable	120 V ac 240 V ac	60 Hz 50 Hz	20 W
User interface ADB switch (is not ac powered)	—	—	—	—
V-LAN and VLXi	Auto-sensing	120 V ac 220 V ac	60 Hz 50 Hz	20 W

Broadcast Panels

One of two possible broadcast panels might be attached to the rear of the Avid Media Processor. The broadcast panel centralizes many of external connectors used for attaching the Avid broadcast system components. Figure 12 shows the digital broadcast panel, Figure 13 shows the analog broadcast panel.

The following sections provide the pin assignments for the broadcast panel and the Avid GPI controller. These pin assignments are sometime requested by Avid customers for customizing their interface cables.

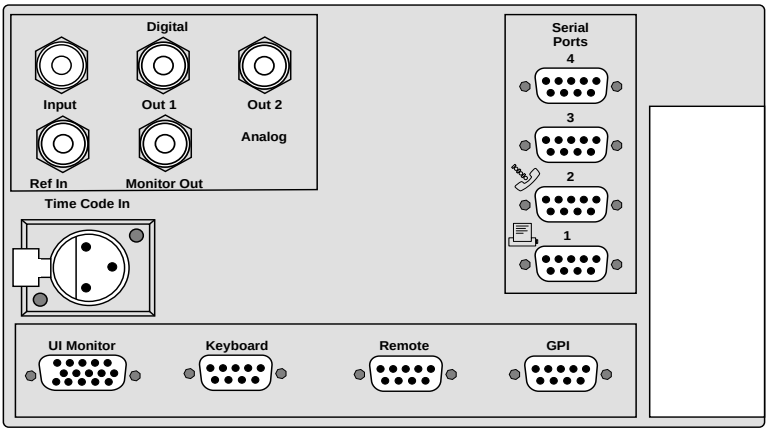

Figure 12 Digital Broadcast Panel Connectors

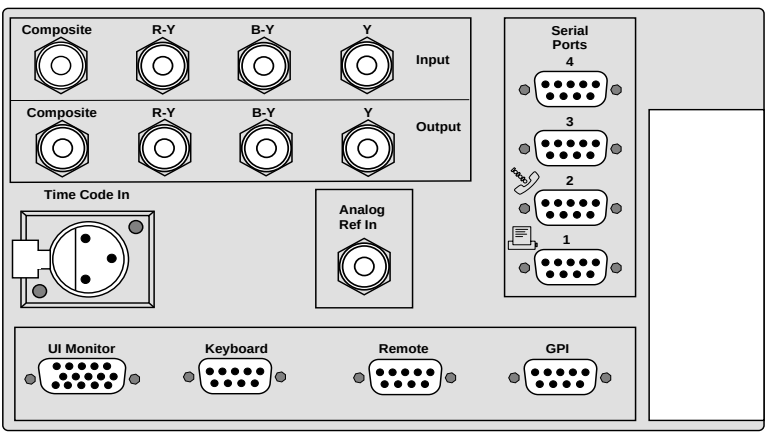

Figure 13 Analog Broadcast Panel Connectors

Serial Ports

The broadcast panels contain four serial ports. The serial ports use 9-pin male connectors. Figure 14 shows the pinouts for the serial connector.

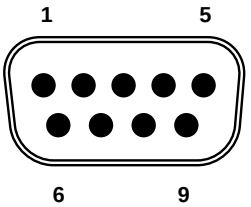

Figure 14 9-Pin Serial Connector

Table 8 lists the pin assignments for the serial connectors. Not all serial devices use every signal.

Table 8 Serial Connector Pin Assignments

Pin	Signal
1	DTR
2	CTS
3	TxD-
4	GND/Shield
5	RxD-
6	TxD+
7	Not used
8	RxD+
9	Not used

Keyboard, Remote, and GPI Connectors

The keyboard, remote control, and GPI connectors are 9-pin female connectors. Figure 15 shows the pinouts for these connectors.

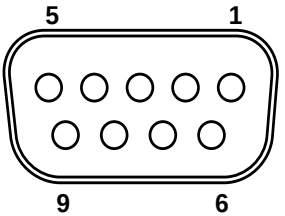

Figure 15 Keyboard, Remote, and GPI Connector

Table 9 lists the pin assignments for the keyboard, remote, and GPI connectors.

Table 9 Keyboard, Remote, and GPI Connector Pin Assignments

GPI Pin	Remote Pin	Keyboard Pin	Signal
6	6	6	ADB
NC	NC	5	Power on
NC	NC	4	+5 V, 500 mA maximum
2	2	2	GND/shield

NC – no connection

UI Monitor Port

The UI monitor port uses a 15-pin female connector for the UI monitor. Figure 16 shows the pinouts for the connector.

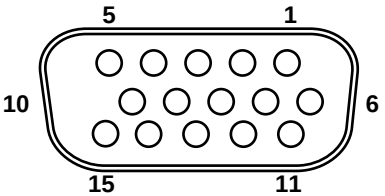

Figure 16 UI Monitor Connector

Table 10 lists the pin assignments for the UI monitor connector.

Table 10 UI Monitor Connector Pin Assignments

Pin	Signal
1	Red video
2	Green video
3	Blue video
4	MonID2
5	SYNC GND/HSYNC GND
6	Red GND
7	Green GND
8	Blue GND
9	Not used

Table 10 UI Monitor Connector Pin Assignments (Continued)

Pin	Signal
10	SYNC GND/HSYNC GND
11	MonID0
12	MonID1
13	HSYNC
14	VSYNC
15	COMPSYNC

GPI Connector

The Avid GPI controller provides a 50-pin female connector on the back of the unit. Figure 17 shows the pinouts for the GPI connector.

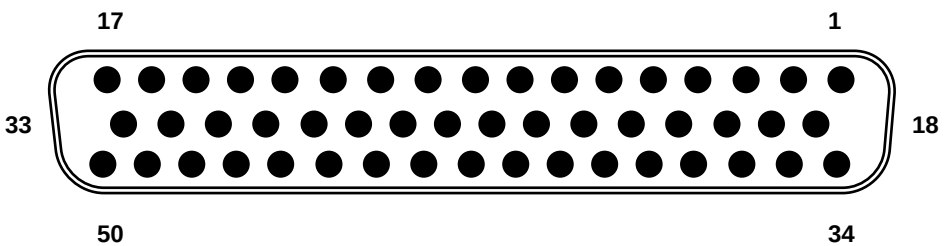

Figure 17 50-Pin GPI Connector

Table 11 Avid GPI Controller Pin Assignments

Pin #	Signal	Function	Pin #	Signal	Function	Pin #	Signal	Function
1	IN 1	Stop	18	VCC	Pull-up	35	GND	Ground
2	VCC	Pull-up	19	GND	Ground	36	VCC	Pull-up
3	OUT 5	Assignable*	20	IN 2	Play / record	37	GND	Ground
4	OUT 6	Assignable	21	IN 3	Standby	38	VCC	Pull-up
5	OUT 7	Assignable	22	IN 4	Recue	39	GND	Ground
6	OUT 8	Assignable	23	IN 8	Reserved	40	VCC	Pull-up
7	OUT 1	Assignable	24	IN 7	Reserved	41	GND	Ground
8	OUT 3	Assignable	25	IN 6	Tally in	42	GND	Ground
9	OUT 16	Play Status Tally	26	IN 5	Skip	43	GND	Ground
10	OUT 14	Stop Status Tally	27	OUT 2	Assignable	44	GND	Ground
11	OUT 9	Assignable	28	OUT 4	Assignable	45	GND	Ground
12	OUT 11	Assignable	29	OUT 15	Standby Status Tally	46	GND	Ground
13	GND	Ground	30	OUT 13	Assignable	47	GND	Ground
14	VCC	Pull-up	31	OUT 10	Assignable	48	GND	Ground
15	GND	Ground	32	OUT 12	Assignable	49	GND	Ground
16	VCC	Pull-up	33	GND	Ground	50	GND	Ground
17	GND	Ground	34	VCC	Pull-up			

* Assignable means that the user can assign the output signal.

Peer-to-Peer Networking (Optional)

Avid offers a peer-to-peer networking solution called the AvidNet™ Transfer Tool. The Transfer Tool provides media transfer and sharing capabilities as well as a standalone application for transferring files between Avid systems. The Transfer Tool requires a network board installed in the Avid system. When specified, an optional network board is preinstalled in Avid systems.

Because of the diversity and complexity of possible network configurations, Avid Technology can only be responsible for the operation of the AvidNet Transfer Tool software. Problems with network hardware or network operation should be addressed by in-house networking personnel or a network consultant.

If your site does not have in-house networking expertise, Avid recommends that you hire a network consultant for the task of setting up, configuring, and maintaining your Ethernet or ATM network site.

For more information, see the *AvidNet Peer-to-Peer Setup and User's Guide*.

Site Preparation Check List

Use the following check list when preparing for delivery of the equipment. Fill in the blank information as soon as possible.

- ❑ Ensure all ac power requirements are met and high volume air conditioning is provided to the system and its components.
- ❑ Check that the site meets all the environmental requirements.
- ❑ Arrange for movers and unpackers who are familiar with unpacking delicate electronic assemblies.

- ❑ Install all possible cabling before the equipment arrives, for example, lay out network and interface cables between rooms before setting up the equipment.

  Make note of all the network IP addresses (server, clients, ATM switches, dial-up options). IP addresses are supplied by your network administrator.

  IP address _____

  IP address _____

  IP address _____

  IP address _____

  IP address _____

  Also have the networking documentation handy for reference.

- ❑ Provide a black burst generator (or reference video source) and 75-ohm coaxial cables; provide enough cables to connect the Avid system, video deck, Video Slave Driver, and V-LAN VLXi.

- ❑ Arrange for any additional equipment you plan to connect to the system (such as videotape recorders or printer) and appropriate cables for connecting the equipment.

- ❑ Check that any fiber cable can not be damaged by traffic or moving objects. Typically fiber cable is run along ductwork. Fiber cable is made of a fine strand of glass and is not resilient by nature.

- ❑ Verify that the site has a telephone connection to allow a direct dial-in line for a modem or easy access to Avid Broadcast Customer Support (if necessary). A telephone line for each is recommended.

- ❑ Document a list of installed options; including the type, size, and number of disk drives.

❑ Keep all documentation and diskettes together and make them accessible. If Avid Broadcast Customer Support needs to walk through operational steps or reload software, having the documentation and diskettes easily accessible will improve the process.

❑ Assign a system administrator; also, assign a backup contact person.

Primary administrator _____

Secondary administrator _____

Administrators must have access to all user and password information.

❑ Note the names and telephone numbers of your Avid field representative and service technician (in case you need their assistance before, during, or after installation). Also, note the serial number of the system and the date it was installed.

Date installed _____

Serial number _____

System modem telephone number _____

Avid field representative _____

Telephone number _____

Service technician _____

Telephone number _____

Before contacting Avid Broadcast Customer Support, have ready as much information as possible about the problem including any error messages that might have occurred. Also be prepared to provide the information listed in the Check List and anything already tried to resolve the problem. Remember to record the support person's name and telephone number in the event that a call back is necessary.

Call back contact _____

Telephone number _____

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